THE VETERINARY RECORD

A Weekly Journal for the Profession.

No. 1140. MAY 14, 1910 Vol. XXII

King Edward VII.

No matter what his rank or calling, every Briton has been shocked and grieved by the unexpected death of the King. After all that has been so brilliantly written and so eloquently said during the past week it would be foolish for our weak pen to attempt any eulogy of one so universally sorrowed for. What we cannot ourselves say in words worthy of the occasion we may be pardoned for expressing in the language of others.

"Never did a King rule more in the affection of his people. The nation's heart is therefore heavy, and it mourns with genuine grief. His reign was all too short, and the loss seems almost irreparable. His Majesty's own dominions were vast, but his influence extended far beyond these. It was international and world-wide, and always a force for good.

The late King has been gathered to his fathers, but he leaves behind him a glorious example and memory as a great Constitutional Sovereign, a sagacious ruler and commanding personality, a friend of his people, and a benefactor of mankind.

Truly it may be said of him in the fullest meaning of the words, 'He worked for the good and amelioration of his people.' It is not the time or the place to attempt to note any of his many good services to his nation and Empire. We, his subjects, cannot yet fully appreciate his loss, and we have not recovered from the blow sustained by the sudden death of him to whom the Empire and the civilised world looked forward for many years of prudent counsel.

It is not unfitting to observe that by his wise and far-seeing influence he did much to promote among the civilised nations of the world a spirit of friendliness and goodwill. Generations to come will recognise how unceasingly and earnestly King Edward laboured in the cause of peace."

King Edward as Country Gentleman.

A writer in *The Westminster Gazette* says:—

"In still other directions the King was the reflection of his own subjects. If one imagines an Englishman with a fondness for country life and ample means to gratify his predilection one would conceive of him pursuing exactly the course which the late King followed. He would breed horses, form pedigree herds of cattle and sheep, and develop his estate to the highest point of agricultural prosperity. These were the tastes which found their outlet at Sandringham, which stands amid country that in the space of a century has been rescued from worthlessness and brought to the highest point of cultivation. Most of that change has been brought about by the late King. At Sandringham three Derby winners have been bred; the Shire horses are the finest in the country, and have won high honours when exhibited; the stud of hunters and hackneys contains magnificent blood. There are pedigree shorthorns and other breeds of cattle which have conquered at all the shows; the late King's Southdown sheep were the most formidable competitors that breeders of this type had to meet. Sandringham, indeed, presents an almost unique instance of how farming carried out upon lavish lines can be made profitable, as it must have been there for many years past. There are few Englishmen who would not attempt a little farming had they the means to fulfil their inward desire. The late King simply followed a taste that is almost part of the bone of the average Briton.

In no direction did his late Majesty reflect a prevailing sentiment of his day more clearly than in his love of sport of the active kind. The vast extension of the passion for sports is one of the most significant developments of the last forty years. The King shared that passion to the full. Chiefly it found expression in his patronage of horse-racing. His career on the turf began in the eighties, and had been pursued since with augmentation of delight in all the incidents of a race meeting. Three times the horses of the King won the Derby, and on two of these occasions the victor had been bred on his own farm. That is a record such as no other English Sovereign has to his name, although since the days of Henry VIII. most of them have given personal encouragement to horse-racing. The turf, however, was but one field of King Edward's sporting tastes. Himself a shot of not quite the first rank, he delighted, even when lame from an accident, to be in the firing line, and thousands of birds must have fallen to his gun. He showed a liking for big game shooting on the few occasions upon which that form of sport was available to him. Lawn-tennis he played indifferently. At real tennis he was sufficiently good in early days to suggest that he might have become a formidable opponent had he chosen to persevere. As a cricketer he played on a few occasions with I Zingari, and his love of the game was shown in the help he gave in preserving Lord's Ground and the terms upon which he granted leases of Kennington Oval, of which he was the owner.

King Edward obtained real enjoyment from the pomp and pageantry of life. Public ceremonies were with him not a duty to be solemnly gone through, but a sincere pleasure. He loved the colour and the movement of great occasions, finding in them that almost childlike fascination which is the mark of the English crowd. His smile on such occasions was no forced effort, but one of genuine pleasure. Sunny of disposition, loving the good things of life and stinting none of them, fond of a laugh, eager for company at all times, King Edward moved among his people essentially one of themselves in thought and in act. The universality of the sorrow over his death is an acknowledgment of this close personal sympathy in taste, in thought, and in action of Sovereign and the general run of his people."

The Council Election.

The nomination list for the Council election is now closed, and the voting papers will be issued during next week. The following is the final list of candidates:—

J. Abson	John Dunstan
G. A. Banham	F. T. G. Hobday
Col. F. Duck	J. S. Lloyd
A. W. Mason	W. Packman
H. Sumner	R. Roberts
J. Clarkson	T. F. Spencer

The first five names are those of retiring members of Council, all of whom are well known to the electors. All of these may fairly be judged by their past records, and all, we think, should be practically certain of re-election. There are four other seats on the Council to be filled—for the lamented death of the President has added a ninth vacancy to the usual eight—and many electors will feel difficulty in deciding amongst the seven candidates who have not yet held office as Councilmen. That difficulty is increased by the present condition of our professional politics.

There is this year no acute test question before the electors. Last year the projected Bill dwarfed all other considerations, and the election determined its final acceptance by the profession, and the financial history of the College during the past twelve months has placed its necessity beyond dispute. Practically the Bill may be left out of account in the present election. It will be presented to Parliament at the earliest favourable moment, and, vital to our professional existence though it is, it has ceased to be a subject for controversy amongst our own members.

The new members of Council will be confronted with heavy responsibilities. The ordinary routine work of the College, the need for the most scrupulous economy pending the passing of the Bill, and the ceaseless struggle to secure proper recognition for the profession—a struggle which, it should be remembered, requires to be conducted with tact and judgment no less than with firmness—combine to make it necessary that we should elect capable and conscientious men. One of the most important and also one of the most difficult special problems which will confront the new Council, probably at its first meeting, is the remodelling of the Fellowship Degree. Candidates allude to this in their election addresses in rather vague terms, and it is difficult to see how they could do otherwise. A Committee is now sitting to devise new regulations for the Degree, and it would be distinctly premature to consider the question in detail until its report and recommendations are before us. Similarly, upon other questions, the candidates necessarily express themselves very generally. They promise to do their best to advance the interests of the profession: we must choose those whom we believe to be at the same time most capable of serving us well and willing to work hard for us.

It is not necessary this year, as it was last, that a candidate should take a certain view of one crucial question. It is necessary that he should be willing to give his time ungrudgingly to the Council's work, and be able to consider many questions with a level head and a clear judgment. The candidate who, in a short address, emphasised the value of "plain commonsense," has recognised the needs of the situation. We have no lack of candidates, none of them unknown, to choose from; we must be guided by our estimate of their personal general fitness for the responsibilities of office, without reference to any particular question.

JOINT ILL, PYÆMIC AND SEPTIC ARTHRITIS IN FOALS.

This disease which causes such losses every foaling season is, I think everyone will allow, well worthy of the closest attention from veterinary surgeons. For a good many years now it has been accepted that the cause of the disease is septic infection through the navel, and great care has been insisted upon by careful owners and others interested that the ligature used in tying the umbilical cord should be strictly aseptic, and that other means should be used to prevent infection.

Now allowing that in the majority of cases the infection does enter the system by the navel; there are cases where the umbilical cord is to all appearances perfectly healthy and the opening closed in quite a natural manner. The post-mortem examination, although clearly showing suppurative inflammation in some of the joints, does not reveal the abnormal condition of the navel ring, peritoneum, umbilical vein, liver, etc., which is held to be typical of the disease. This has led me to consider whether the infective agent may be sometimes introduced into the system in some other way than by the navel. With this end in view I have examined the feet of foals. They are generally in a very spongy, I might almost say raw condition, especially the frogs, and the clefts between the frogs and soles. We know the readiness with which fully formed horn will absorb moisture, is it not possible that horn in what I may call its infantile condition, will also admit the entrance of bacteria as well? The full horny union between the frog and sole appears to be completed after birth, and before this process is completed the feet are constantly in contact with septic material.

If there is anything in this theory, which I have never heard suggested, the preventive treatment for navel ill would necessitate attention to the feet as well as the navel, antiseptic applications, and as far as possible cleanliness. The latter would be difficult, but something might be done more than at present is attempted.

My reason for drawing attention to this is that perhaps it may induce some practitioners who have much better opportunities than I have to look into the matter, and if no good comes from their action at least no harm can be done.

Is it not rather singular that the lower joints of the limbs are frequently first affected if the mischief always proceeds from the navel?

J. H. Bennett.

Romford.

ADENO-CARCINOMA OF THE LUNG, WITH SECONDARY GROWTHS, IN A COW.—By J. A. GILRUTH, M.R.C.V.S., F.R.S.E., Professor of Veterinary Pathology, Melbourne University (late Chief Veterinarian).*

An interesting report of this case, along with specimens for microscopical examination, was received from Mr. W. T. Sabin, Government Veterinarian, who is most assiduous and careful in noting unusual pathological conditions.

The animal was a Jersey cow, aged eight years The cow, then in good condition, was attacked with milk-fever after calving, in Nov., 1907. She recovered under treatment, but remained dull and weak. Atrophy of the muscles of the forelimbs developed, but this was considered due to injury received when she was suffering from milk-fever, it having been deemed necessary to drag her some distance to a convenient and sheltered place. Her milk, which was abundant, was, however, given to her calf, as it was obvious the cow was not in health. Later on, tuberculosis being suspected, she was tested by Mr. Kerrigan, but there was no reaction; the result, nevertheless, was considered doubtful, as her initial temperature had been abnormally high. Finally, general weakness became so marked that she was unable to rise, and the owner destroyed her as hopeless on the 22nd July, 1908.

A post-mortem examination was made by Mr. Watt, Assistant Meat Inspector, who, finding unusual lesions in lungs and kidneys, communicated with Mr. Sabin, and he, after visiting the place and carefully examining the affected organs, reported as follows:

"The general condition of the animal was poor. The lungs showed no growth externally, but the left lobe was enlarged by a visible swelling. On section of the lung a dilatation of a bronchus was opened, and a portion of new growth became visible, forming part of the wall, appearing as a smooth yellowish surface, not ulcerated, but apparently covered by normal mucous membrane. The swelling was found to be due to a tumour with circumscribed periphery, ovoid in shape, about 5in. long and 3in. in its narrow diameter, fairly dense, and fleshy in consistence. The appearance of the cut surface was yellowish, with irregular whitish fibrous bands throughout, and here and there areas of degeneration (colloid). Scattered through the substance of both lungs were smaller, more spherical, areas, probably secondary, which were homogeneous and yellowish on section. The mediastinal gland was enlarged, about two-thirds of its substance being occupied by a new growth similar to the secondary tumours in the lung. The kidneys were also metastically affected. In one were several globular tumours from 2in. to 3in. in diameter, coalescing at points, and numerous smaller areas, varying from the size of a pin-head head to that of a pea, the greater part of the normal tissue of the organ being replaced by the new growths. The other kidney was also affected, but the tumours were fewer in number, about half the organ being replaced, however, by the new growth. The larger tumours were visible on the surface as slight nodular projections of a yellow colour. It was not until section had been made that the full size of any nodule was disclosed. The consistence was fairly dense, the colour a homogeneous pale yellow, and almost caseous-looking. Each nodule was spherical and definitely circumscribed by a thin, fibrous false capsule."

Mr. Sabin formed the opinion that the disease was a form of cancer, the large tumour in the lung being the primary growth, the others, as well as those in the mediastinal gland and the kidneys, being secondary. The fact that the large tumour of the lung alone showed on section visible bands of fibrous tissue, and also areas of degeneration, supported the conclusion; and microscopical examination of sections confirmed it as far as possible. —(From Annual Report, 1909, Div. of Vet. Sc: Dept. of Agric: New Zealand.)

* The investigation which is here reported was in progress at the time of Mr. Gilruth's resignation, and was continued by him in Melbourne. This service by Mr. Gilruth is highly appreciated.

ABSTRACTS FROM FOREIGN JOURNALS.

A CONTRIBUTION TO THE STUDY OF CHRONIC BRONCHITIS IN THE HORSE.

Grüter describes (*Schweizer Archiv.*) a special form of equine chronic bronchitis which he has repeatedly observed and studied, and the symptomalogy of which he especially contrasts with that of broken wind.

This form of bronchitis, which Grüter provisionally designates *dry bronchitis*, appears sporadically as a result of a chill. Often, however, it occurs without any determinable cause. At first, the general condition is markedly altered. The temperature is high (104° F.); the pulse reaches 80 per minute and the respirations 50 to 60 per minute; the mucous membranes are injected. At first there is a purulent catarrh from the air passages, which afterwards becomes grey and vitreous. Auscultation reveals crepitant and wheezing *râles* in the lower parts of the lung; and, here and there, the vesicular murmur is diminished and even totally abolished.

This febrile period is of short duration. It lasts from four to five days, at the end of which time the affection assumes a chronic type. The temperature and the cardiac activity regain their normality, but the respiration remains accelerated, reaching 25 per minute at rest. The respiratory movements are neither deep nor embarrassed, and the movements of the flank do not show the characteristic double breathing of broken wind. The projection of the anus, seen in broken wind, is absent. The wings of the nostrils are very mobile, and dilate widely at the least exercise. The cough is frequent, violent, and very dry; it often occurs in fits, causing great dyspnœa. The catarrh from the air passages disappears as soon as the affection has reached the chronic stage. Percussion does not

reveal any pulmonary lesion; auscultation shows a diminution of the vesicular murmur. This chronic condition is of long duration, and shows no tendency to recovery.

It is important to differentiate between this "dry bronchitis" and the ordinary bronchitis which so often terminates in emphysema. This differentiation is not easy at the commencement, for the distinctive signs appear later. The author summarises these as follows. In dry bronchitis the respiration is simply accelerated, while it is clearly intersected in the emphysematous horse. In both affections there is a dry cough, which is, however, more difficult in the emphysematous horse than in the subject of dry bronchitis. In the latter condition, when established, discharge from the air passages is rare; but it is nearly always present in emphysema, especially after exertion. The thoracic *râles* are alike more abundant and more easy to perceive in the case of emphysema. Moreover, the augmentation of the volume of the lung in emphysema renders the percussible area greater, while the area of hepatic dullness is displaced backwards. These latter manifestations are absent in dry bronchitis.

Post-mortem, a lung affected with dry bronchitis is found to be fully collapsed, and its colour is that of a normal lung. The pulmonary tissue is elastic, but here and there, both on the surface of the lung and in the depths of the pulmonary parenchyma, areas are found in which the elasticity is slight. These areas are ill-defined, vary from the size of a nut to that of a fowl's egg, and are firmer and heavier than the normal parenchyma. Percussion of the lung removed from the thorax yields a normal sound, except over these diseased areas, from which a dull sound is given. When taken from a horse which has only been ill a short time, these areas show, upon section, a greyish red colour; while old lesions are yellow or even white. When recent lesions are compressed, they give exit to a greyish red liquid, and grey plugs are seen to appear from the fine bronchi. White, and therefore old, lesions yield no liquid upon compression, but their fine bronchi are found plugged with contents similar to those of recent lesions. Little alteration is found in the large bronchi, and bronchi-ectasis is absent. The pulmonary pleura is normal; the bronchial lymphatic glands are a little congested, but never present softening. The pulmonary parenchyma, except in the specially affected areas, is little altered, and does not show emphysema.

Microscopic examination of the diseased areas shows, as the author admits, that the term "dry bronchitis" is somewhat inapplicable. The bronchi contain a rather abundant secretion, and the induration of the diseased areas is found to be due to interstitial inflammatory lesions with marked proliferation of connective tissue, destruction of alveolar epithelium, and occlusion of the alveoli.

Probably this form of bronchitis developes under the influence of factors having a specific action upon the connective tissue and the alveolar epithelium. But whatever its precise cause may be, it must be regarded as a condition quite distinct from that of chronic bronchitis which brings about emphysema.—*Annales de Méd. Vét.*

Preputial Discharge in the Dog.

Cinotti (*Il nuovo Ercolani*) has made a careful study of this common affection, prefacing it by an examination of the canine prepuce and especially of the investment, resembling a mucous membrane in appearance, which lines the interior of the prepuce and is prolonged over the free portion of the penis. This lining membrane is especially remarkable for the absence of glands and for its richness in lymphatic follicles. The author summarises his conclusions regarding preputial discharge as follows:

1. The preputial discharge of the dog is a chronic purulent balano-postitis due to ordinary pyogenic organisms, the virulence of which is neutralised or considerably attenuated by the numerous lymphatic elements existing in the membrane lining the interior of the prepuce and the extremity of the penis.

2. Numerous other organisms are associated with the common pyogenic ones. Among these is the *Bacillus subtilis*, which may, under the special conditions obtained in the prepuce, acquire a somewhat limited pathological power.

3. Infection takes place very easily, either by the penetration of these organisms into the preputial cavity through its external orifice, or by contamination of the penis when protruded.

4. The infection is frequently renewed, and the condition becomes chronic on account of the favourable conditions (heat and moisture) which the germs encounter within the prepuce.

5. The affection is benign in character. It is only transmissible experimentally from dog to dog in exceptional cases. It is not transmissible from the male to the female, on account of the attenuation in virulence of the microbes of the discharge and the special conditions of organic protection of the vagina of the bitch.

6. The benignity of the germs is especially due to the anti-virulent action of the liquid secreted by the internal lining of the prepuce.

7. The limited and transient efficacy of treatment depends upon the facility of re-infection, and especially upon the structure of the membrane lining the prepuce, which presents folds and depressions in which the germs become lodged and thus difficult to reach by medical agents.—(*Annales de Méd. Vét.*)

"Auto-Amputation" of the Tongue in a Cow.

This curious title is given by Cinotti (*Il nuovo Ercolani*) to a rare accident which he observed. The subject was a five-year-old cow which had given birth to two dead calves after a long and difficult parturition, during which she appeared to suffer extremely, though the size of the twins was not excessive. After the parturition, the cow refused all solid food and only took a little fluid; the owner attributed this loss of appetite to the effects of the severe parturition. Although the cow showed a difficulty in prehension, the mouth was not at first examined.

Cinotti saw the animal seven days after parturition, when she had fallen away considerably. The

coat was staring, the flanks sunken, a little normal mucus was flowing from the nostrils, and the tongue, shrivelled and apparently necrotic, was visible between the lips. Upon closer examination of the mouth, Cinotti found that the anterior portion of the tongue was almost detached, a deep oblique groove dividing the organ into two parts. A nauseous gangrenous odour came from the mouth, and the detached part of the tongue was yellowish-green in colour and cold.

Cinotti removed the mortified portion of tongue by simply grasping it firmly and exercising torsion, combined with a certain amount of traction, upon it. Already more than three parts detached, the dead part separated with very little bleeding, leaving a stump richly covered with granulation tissue.

The detached part was 18 centimetres (7 1-5th inches) in length, and comprised nearly all the free portion of the tongue. It was so emphysematous from the presence of putrefactive gases that it floated in water like a piece of lung.

From the history and appearance of the case, Cinotti considers that the injury was caused by violent compression of the tongue between the molars, during the excessive labour pains. He advised preparing the cow for the butcher by feeding with liquid nourishment placed in a deep receptacle to facilitate drinking. He does not say whether it was found possible to fatten her in this manner. *Annales de Méd. Vét.*

A Peculiar Tuberculous Lesion.

Hans Schultze describes the following case, which recently came under his observation during meat inspection. The subject was a six-years-old cow in moderately good condition, which, when inspected prior to slaughter, has not only shown no symptoms indicative of disease, but also had shown no special fatigue from a long journey which she had made to the abattoir.

The chief pathological lesion was of the heart, which was enlarged to threefold its normal volume, and weighed 22 pounds. The pericardial cavity was completely filled with calcified tuberculous new growths, which could only be cut through with the knife by the exercise of force. The whole heart was thus surrounded by a calcified investment which the author likens to a "stone coat of mail," having an average thickness of 1 1-5th inches, while at its thickest part it reached 2 inches.

The muscular walls of the cardiac ventricles, which were inseparably united with this calcified investment, were considerably atrophied. The wall of the right ventricle was only 2-5th inch thick, and that of the left ventricle 3-5th inch.

The parietal and pulmonary pleuræ showed tuberculous lesions, which were comparatively slight, and contrasted sharply with the marked cardiac alterations.

The pulmonary tissue was diseased, but this was only disclosed by the existence of some old calcified tubercles in the bronchial lymphatic glands. The anterior mediastinal gland was considerably enlarged and invaded by calcified tubercles, while the posterior mediastinal gland also contained a small quantity of old foci of tuberculosis.

The glands and parenchyma of the liver and kidneys contained a few old tuberculous lesions. The spleen was unaltered.

The renal lesions indicated a previous generalisation of the bacilli by means of the blood stream. One muscular lymphatic gland also contained small old lesions of tuberculosis, the remainder were normal.

The peritoneum was slightly tuberculous. The uterus and udder were healthy. The bones visible to inspection—vertebræ, spinal processes, ribs and sternum—were free from lesions.—(*Berliner Tier. Woch.*)

W. R. C.

ELECTION ADDRESSES.

To the Fellows and Members of the Royal College of Veterinary Surgeons.

Gentlemen,

The Yorkshire Veterinary Medical Society has done me the honour to nominate me as candidate for the forthcoming election of Council, and I respectfully appeal to you for your support.

I am entirely in favour of the Bill which is to be presented to Parliament and have recognised for many years the necessity of some such measure, as I have noted the financial strength of our College gradually weakening.

I would urge on the Council the desirability of doing all in its power to gain for the members of our profession the recognition that we are medical practitioners—in the legal sense—which would entitle us to many privileges such as exemption from service on juries, etc.

If you do me the honour to return me as member I shall spare no time or pains to attend to the duties involved, and will give my heartiest support to any measure for the advancement of the best and highest interests of our profession.—I am, gentlemen, yours faithfully,

J. Clarkson.

Garforth, Leeds, May 10.

To the Fellows and Members of the Royal College of Veterinary Surgeons.

Gentlemen,

At the last quarterly meeting of the Lancashire Veterinary Medical Association I received the honour of nomination as the Society's candidate for election to the Council of the Royal College of Veterinary Surgeons.

In seeking your support I feel compelled to state that I view with dismay the present financial condition of the funds of the College as set forth by the Finance Committee at the last quarterly meeting of the Council, when it was stated that an adverse balance of over £80 had to be met by a bank overdraft. This want of the necessary funds to

carry on the proper work of the College requires, in my opinion, the taking of immediate steps to bring about a remedy by instituting a registration fee.

I am pleased that the granting of a diploma in Veterinary State Medicine by the Royal College of Veterinary Surgeons has been under the consideration of the Council, and that a committee is now setting to deal with the reorganisation of the examination for the Fellowship Degree, and also that the Parliamentary Committee is active with respect to all Public Health Bills in which the profession is interested.

In asking for your votes I can assure you that if successful in being returned to the Council it will at all times be my earnest endeavour to attend to to the duties of the position, and support that which makes for the advancement of our profession.—I remain, your obedient servant,

WALTER PACKMAN.

The Wylde, Bury.

To the Fellows and Members of the Royal College of Veterinary Surgeons.

Gentlemen,

For the past 19 years I have had the honour of representing you upon the Council of the Royal College of Veterinary Surgeons. I am again a candidate at the coming election and solicit your vote and interest.

My views are too well known upon the general topics of our profession to go into detail upon the same, but I advocate thoroughly the application to Parliament for the Bill formulated by your Council, as approved by the great majority of the profession. If elected, you can rely upon my continued interest and to faithfully carry out the duties and proceedings of your Council, and at all times possible to promote and maintain the best interests of the profession. A. W. MASON, F.R.C.V.S., L.D.

Grafton House, Leeds.

Leeds, May 9.

To the Members of the R.C.V.S.

Gentlemen,

I have had the honour to be nominated as a candidate for Membership of the Council, and I venture to offer the electors my views on some of the most pressing professional matters.

The financial position of the College is one which leaves no doubt that some source of income other than is now obtained, is necessary if the Body Corporate is to efficiently carry on its business. I shall therefore, if elected, do my best to support the proposed Bill.

The Fellowship Degree has been useful in the past, but the time has arrived when Governments and Local authorities are appreciating the value of special degrees. I shall give my support to such alteration of the Fellowship examinations as shall make the degree a more distinctive mark of special attainments.

On the ordinary business of the Council I may claim the possession of long experience, and, I hope, the plain commonsense, which are essential to the consideration of all matters.—Yours faithfmlly,

RICHARD ROBERTS.

Tunbridge Wells, May 11.

MEAT-EXPORT SLAUGHTERHOUSES IN NEW ZEALAND.

[This and the following extracts are from the Annual Report of the Veterinary Division.]

The whole of the meat-export slaughterhouses have received close attention from the licensees in the matter of the maintenance of sanitation and general efficiency. In three or four cases, where the premises are of early date and consequently more difficult to maintain in proper condition, and, moreover, are proving inadequate as regards space and facilities for coping with an increased volume of business, active steps are being taken either to provide new and up-to-date buildings, fulfilling in all respects the requirements of the Act, or to transfer the work of slaughtering to existing satisfactory premises. In fact, one of the most satisfactory features of the administrative work under the Slaughtering and Inspection Act is the readiness with which licensees of meat-export slaughterhouses comply with any requests made to them for needed improvements in or about their premises.

The regulations governing the inspection of boneless meat, etc., at ports of landing, issued by the Local Government Boards of England, Scotland, and Ireland, had the effect of practically bringing to an end the export trade from this country of "boned meat." While fully cognisant of the fact that this, so long as it was kept within control, and only meat of sufficiently good quality allowed to be exported, was a legitimate and paying business, yet it was certainly not calculated to enhance the high reputation deservedly attained by our export meat, and, indeed, had in it appreciable possibilities of evil. In its place has now sprung up a trade in meat of similar quality, shipped in quarters. This substituted trade lays us open to even greater risks, unless the greatest care be continually exercised to maintain a good standard of quality. While a lean carcase which may be held as not coming within the interpretation of the term "emaciated" may, when cooled after dressing, "set" fairly firmly and brightly, it will present an altogether different appearance when defrosted after reaching its ultimate destination. Though it cannot be said that there is no justification for this class of business, I am convinced that it is not conducive to the best interests of the Dominion generally, and particularly those of the producers. In fact, this export business in inferior beef, while apparently profitable to the purveyor of cheap meat foodstuffs at Home, is of very slight value to the producer, and if it were curtailed he would suffer but little, if at all, seeing that he could still dispose of his discarded bulls and cows through other available commercial channels which would return him a fair price for stock of this class. In dealing with such cattle Inspectors are often placed in a most unsatisfactory position, owing to the fact that their powers are not sufficiently clearly defined.

An amendment of the Act to give Inspectors more clearly defined powers in this direction has been strongly advocated in previous reports, and I would emphasise the necessity for such an amendment. I fully realise the fact that it is desirable to encourage legitimate trade, and there can be no serious objection to the exportation of what may be termed second-class carcases of beef if healthy and of good enough quality; but I submit that it is detrimental to the interests of the producer in particular to export markedly inferior beef, which when ex-

posed for sale in Great Britain will at its best present a most uninviting appearance, and at its worst most certainly be condemned whenever it comes under the notice of an Inspector there. The recent action of the Local Government Board in Great Britain must have the effect of increasing the stringency of the inspection of imported meat, and it is necessary that we take all necessary precautions to safeguard our good name.

I would once more direct attention to the state of the law regarding the sale of fresh pork within abattoir districts. While no beef, mutton, or veal can be exposed for sale unless it be from animals slaughtered and dressed in a public abattoir or a meat-export slaughterhouse, there is no restriction whatever upon the sale of pork, so long as it is from pigs killed—at the rate of not more than five per week—by a *bona fide* farmer. I would emphasise the necessity for an amendment of the Act to remedy this, at present, anomalous and unsatisfactory position.

Blackleg.

The annual inoculation of calves against blackleg has been carried out in Taranaki with entirely satisfactory results, thanks largely to the efficiency displayed by the Inspectors intrusted with the duty. Mr. Young, who, as before, supervised the entire work, has furnished the following report:—

I have pleasure in reporting that this disease is fast disappearing in Taranaki under the conditions existing for its eradication.

During the year ending 31st March, 1909, 28,839 calves have been vaccinated as a preventive by the Inspectors of Stock, and with much success. Forty-seven cases suspected of blackleg were investigated by these officers, but I recognise the great difficulty of arriving at a correct diagnosis, principally due to delay in reporting. In many cases, however, death was found to be due to other causes, and even after allowing for doubtful cases, and cases which may not have been reported or suspected, I would place the number of calves which have this year died of blackleg considerably under the number suspected.

The successful results of the past two years' work have attracted much attention to the existing regulations, and a hope has been expressed that the time has now arrived for considerable modifications or removals of these restrictions. This being so, I have carefully considered the whole situation, not only from a veterinary point of view, but also from a commercial aspect, and have to report that, in my opinion, (1) cases of blackleg will occur in Taranaki for years to come; (2) if vaccination were to cease at the present time there would be an immediate recrudescence of the disease; (3) blackleg only exists in New Zealand at the present time within a small area, but if given facility would overrun the whole of the North Island in less than five years' time. This being the case, it is in the interests of the Taranaki farmer that vaccination should continue, and in the interests of the Dominion that a safe quarantine be maintained.

The whole of the blackleg vaccine used during the season (some 28,839 calves being inoculated) was prepared in the laboratory, and proved reliable in every way.

Bovine Contagious Mammitis.

This disease continues to be a source of serious trouble and monetary loss to dairy farmers. It is found in nearly every part of the Dominion, cases from as far north as Whangarei and as far south as Otautau having come under notice. As this Division exercises no jurisdiction over dairy cows, the information at my disposal concerning the disease is not very circumstantial, and it is impossible for me to state with any degree of exactitude to what extent the dairy herds of the country are affected. Reasoning from what has come under my notice, however, I am decidedly of opinion that a very large number of cows throughout the country are suffering from the disease, many only in its subacute form.

Some serious outbreaks of acute contagious mammitis have occurred, two in the Manawatu district and two in Southland having caused great loss, one farmer having had the bulk of his dairy herd rendered practically useless for milking purposes, while another had to give up dairying altogether. Other serious outbreaks have occurred. In the interests both of dairy farmers personally and of the dairying industry generally it is highly necessary that this disease be scheduled in the Act, in order that it may be dealt with in an effective manner in the direction of preventing its dissemination from cow to cow, and from farm to farm, through the medium of affected cows sold by their owners through saleyards to other farmers. It is satisfactory to note that there are indications that dairy farmers themselves appear more alive to the necessity for dealing with outbreaks as promptly and effectively as possible, and many specimens of milk from suspected cows are sent direct to the laboratory for examination.

No more satisfactory form of treatment than that by boracic acid injections has yet been found, but experimental work is now being carried out at the laboratory, and also by Mr. Clayton in Canterbury, in the direction of endeavouring to elaborate a method of treatment which will be more reliable.

Partial Hernia in Fat Lambs.

Further inquiries concerning this trouble were made by Messrs. Clayton, Kerrigan, Sabin, and other officers of the Division in the South Island, in freezing works at Christchurch, Oamaru, Dunedin, and in Southland; and such investigations as could be carried out served to confirm the opinions expressed in last year's report that the hernia is produced as a result of pressure on the abdominal muscles arising from a tympanitic condition of the rumen and intestine.

It was observed by Mr. Kerrigan that many cases were found among lambs which had come off rape which was well grown, and consequently was more difficult to digest by young animals. At the same time, the total cases reported did not aggregate so great a number as was at first supposed would be the case.

Examination for Soundness of Stallions Intended for Export or for Sale in the State of Victoria.

The Government of Victoria last year instituted a system of examination of stallions for soundness by Government Veterinary Officers, which, though not compulsory, yet has had the effect of rendering stallions offered for public sale practically unsaleable unless they are found free from hereditary unsoundness. As every year a certain number of well-bred stallions, principally of the draught class, are taken over to Melbourne by New Zealand breeders or dealers for sale there, it was felt that this procedure on the part of Victoria would press hardly upon exporters here. The matter was tentatively discussed with me by the then Hon. Minister for Agriculture and the Chief Veterinary Officer for Victoria, when I was in Melbourne in July, and I then expressed the opinion that, provided the Victorian Government was prepared to accept without question the certificate of a New Zealand Government Veterinarian, countersigned by the Chief Veterinarian, and the matter was placed officially before the New Zealand Government and approved, an arrangement satisfactory to all parties might be arrived at. This has now been done, the Victorian authorities agreeing to accept unquestioned the New Zealand certificate, and Veterinary Officers of this Government, specially detailed for the purpose, will, after receipt of a request sent to the Chief Veterinarian, make the necessary examination, for which a moderate fee only will be charged.

This action naturally raises the question of the existence of hereditary unsoundness in stallions doing service in this country. It is undoubtedly a question of great importance to the agricultural and pastoral community since in the minds of all capable observers interested in horse-breeding for other than racing purposes there can be no difference of opinion as to the necessity for some marked improvement upon existing conditions.

It must be borne in mind, however, that the examination of New-Zealand-bred stallions for export to Victoria, as described above, will naturally have the effect of leaving in this country all those animals which, as a result of the existence of hereditary unsoundness, fail to pass the veterinary examination. Thus, as years go on, an aggregation of unsound horses will take place here, and the existing evil will become greatly intensified.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Proceedings at Monthly Council, held at 16, Bedford Square, W.C., on Wednesday, May 4th, 1910, Sir Gilbert Greenall, Bart. (President), in the chair.

Tuberculosis Experiments.

Mr. Adeane said that, before the Report was put to the Council, he would ask leave to move an amendment. He very much regretted to find that for the moment he was not of the same opinion as Lord Northbrook and the majority of the members who voted against the motion of Mr. Mansell at the Veterinary Committee, but as he was responsible for bringing that question before the Council perhaps they would bear with him a moment while he explained his reasons for doing so. The amendment he suggested was:

"That the experiments suggested to the Veterinary Committee for the purpose of demonstrating that by means of isolation it is possible to rear healthy stock from tuberculous parents, be referred back to the Veterinary Committee for re-consideration, and that they have power, in conjunction with the Finance Committee, to act."

The question of tuberculosis in cattle was certainly one of the most important subjects which they, as agriculturists, had to deal with at the present time. It was no secret, however they might try to blind themselves to the fact, that tuberculosis was rife in the cattle of the country—he did not say only in this country, because he believed it was just as rife in the cattle of other countries—and he did not wish to exaggerate the evil as regards this country especially, but there was this difference between the United Kingdom and foreign countries: English breeders were the great exporters of pure-bred cattle to all parts of the world, and it was a fact that no foreign buyer would take cattle unless they had been subjected to and passed the Tuberculin Test. This meant that they were sending from the country some of the best and healthiest stock, and were having thrown back on their hands more and more the tuberculous cattle, which contaminated the young stock as it came along. It seemed to him if that practice continued it must lead to a progressive deterioration of the young stock of this country. It was a question of supreme importance to breeders, an urgent question, and therefore one which he thought might be taken up by their Society. He hoped that the Council would be willing that the Society should give the lead in this matter. What he hoped the Society would do, and where he thought they might do an immense amount of good, was to demonstrate some way in which the disease might be checked. No Milk Bills, whether accompanied by compensation or no compensation, would have the effect of checking the disease. They must go to the root of the matter and try to throttle the disease at its source. Experiments had been carried out in Denmark which appeared to show that tuberculosis was not hereditary, but was contagious, and he believed that that view was generally accepted by scientific men. There was a loophole of escape. Calves were not born tuberculous, but they acquired the disease by contamination either from their parents or from being brought into contact with other animals, or from being brought up in buildings which were reeking with infection. If these calves could be taken away from their parents as soon as they were dropped, isolated, and reared in healthy surroundings, he believed there was little doubt that they could be brought up in a perfectly healthy state. It was possible for a man to cleanse his herd absolutely of the disease without going to the expense of destroying those animals which might have reacted to the test. This he knew was being carried out in a few, a very few, herds in this country, and with a great deal of success. The argument which had been used to him was, "What is the good of bringing this question forward when every farmer knows, and everyone is perfectly aware, that tuberculosis is not hereditary, and that by isolation you can rear perfectly healthy stock?" He believed there was in this country an immense amount of ignorance on the question. He did not himself realise until recently that tuberculosis was not hereditary, and he was convinced that every farmer in this country did not know that tuberculosis could be wiped out of his herd by means of isolation. That brought him to the point which he desired to submit to the Council—namely, that the Society should make a demonstration. His suggestion was that they should take a certain number of calves—as many as Sir John M'Fadyean would consider necessary to carry out a proper experiment—from reacted cows, and they should see if those calves could be reared free from disease by placing them from their birth, in an isolated position, and bringing them up under the most healthy conditions. If that experiment was successful, he believed it would prove a demonstration of the greatest valve of the agriculturists of the country. He had already mentioned that the experiment was being tried in certain private herds. He had been met by the argument, "What is the use of trying an experiment which is already being carried out by private individuals?" His answer was that an experiment carried out by private individuals had very little weight in the public mind, but the same experiment undertaken by a great and important body like the Royal Agricultural Society carried conviction. With reference to the cost, it would be about £600, covering a period of three years, and there would be a small initial outlay, say from £150 to £200, to put the buildings in proper order for the experiments. He knew the Society could well afford to carry out the experiment. Since he had been on the Council, he had done his utmost to support economy in regard to carrying out the Society's operations—(hear, hear)—but thought, and he hoped they would agree, that the maintenance of the health of the live stock of the country was so important that if it were necessary to spend twice the amount he had mentioned he would not hesitate to recommend it to the Council.

Mr. Bowen-Jones said that as it seemed desirable that the matter should be still further discussed in detail in Committee, he had pleasure in supporting the proposition made by Mr. Adeane. He had hoped that the matter would have been settled that day, and that the experiment alluded to by Mr. Adeane would be carried out under the ægis of the great National Society. Mr. Adeane had entered very fully into the reasons which he believed guided the Veterinary Committee in rejecting the proposal yesterday, when the opinion expressed was that the isolation of cows had

been shown by scientists to be successful, that it was a proven fact, and therefore unnecessary to be demonstrated again. He was fully convinced that what Mr. Adeane had said was true, and that, notwithstanding scientists had agreed that this was proven, and although he, as a practical man, had arrived at the conclusion that this was correct, it was only within the last few years that it had been brought home to his mind. Allowing that others knew it to be so, the general run of farmers in this country did not accept it. He would ask how many of the County Council Executives had referred to the system in their reports during the last four or five years. The Executive of his County Council were good, thorough reformers of cattle disease legislation, but no report of that Executive, although he had brought this system before them, had been made to the Council on the question. It was rather remarkable that it remained for the Sanitary Committee of his county to call the attention of agriculturists and the public of Shropshire to this system, which they believed would mitigate phthisis in the human being if carried out with regard to cattle. It seemed an anomaly to him that such a state of things could exist, and he felt the importance of a great agricultural society undertaking an experiment which would prove an object-lesson to the agricultural world, and which would most likely, in all human probability, be accepted by every agricultural college in England, where the trials would be reproduced if successful. By that means the farmer of England would be educated to try and carry out the system. Those were the principal reasons which guided him in supporting the proposal.

Mr. MIDDLETON had no objection to the report being referred back, but he would like to know from Mr. Adeane how much further they would be able to get. He had not the slightest doubt that if they carried out the proposed experiment, the calves would be brought up perfectly healthy. He thought this fact was already established in the minds of most thinking people, and he did not see how it would be possible for the ordinary farmer to carry out the principle which had been established. He did not see, however conclusively it was proved that cattle could be reared in that way, that they would be brought one step nearer in that direction. He must take exception to one remark in the early part of Mr. Adeane's speech, that no order made to deal with the milk supply, and no bills, would have any effect in the extirpation of tuberculosis. He entirely disagreed as he thought that if the order made by the Board of Agriculture, which had been withdrawn for the present, were carried out, it would do a very great deal indeed to eliminate tuberculosis, because it would prevent animals which were visibly affected, and which were very active agents, from disseminating the disease amongst their fellow-cows, and this would be a very great step in advance in securing the health of the stock of the country.

The EARL of NORTHBROOK extremely regretted to find himself in disagreement with his honourable friend, but he was bound to say that he shared the opinion of the majority of the Veterinary Committee. He was sorry that Mr. Adeane had not been able to be present at the meeting of the Veterinary Committee, as, although not a member of that Committee, he would have been welcome, and they would have been very glad to have heard his views. He would like, however, to say that all the arguments Mr. Adeane had used that morning were most clearly and fully placed before the Committee, who gave the whole question their most careful consideration, and decided, with only two dissentients, not to recommend that this experiment be carried out. He would put before the Council the reasons that had induced the majority of the Committee to come to that decision. The first reason was that they thought it was quite unnecessary to spend the sum of £500—which had grown to £600 (cries of "More!" and "£800!"), and which was apparently still growing—to carry out an experiment for the purpose of demonstrating a fact which was already accepted by the leading veterinary authorities in this and every other country, and by the majority of persons who took any interest in this subject. His friend, Mr. Adeane, attached great importance to the statement that no experiments had been carried out in this country. He would like to point out that the conclusion that calves were not born tuberculous, and that tuberculosis was not hereditary, had not been arrived at so much by experiment as by observations in this and other countries for many years. Mr. Adeane appeared to think that the farmers of this country who were now disinclined to accept the results of these observations would be perfectly willing to accept them if they were demonstrated by the Royal Agricultural Society at Woburn. He did not share that view himself, and he did not think that is was very complimentary to the intelligence of the British farmer. If the farmer did not accept these established facts, it was probably because he was ignorant of them, and it might be desirable that this Society should take means, through its Journal or in some other way, to bring them prominently before the notice of farmers throughout the country. He understood that the proposed demonstration was to show two things. The first was that calves from reacting cows were born healthy and free from tuberculosis. Might he suggest that this might be demonstrated in a much simpler, more expeditious, and cheaper manner by taking calves from reacting cows, having them slaughtered, and their carcases examined? They would then not bring in the question of the reliability of the tuberculin test, which might be raised if they carried out the experiment at Woburn. The second object of the demonstration was to show that a calf from a reacting cow would not become tuberculous unless exposed to infection. He would have thought that if it was first proved that a calf from a reacting cow was healthy, it was obvious that that calf could not possibly become tuberculous unless it had been exposed to the infection of that disease. Unless his honourable friend was of opinion that the tubercle bacillus could be produced in the body of the calf by some process of spontaneous generation, it seemed perfectly clear that the calf could not be infected unless the bacillus was introduced from an outside source. He imagined that to be an undisputed fact, and it appeared to him to be a waste of money to carry out experiments for two and a half years for the purpose of demonstrating a fact that nobody was willing to dispute. Another reason that led the Committee not to recommend the adoption of the proposal was that referred to by Mr. Middleton, that the conditions under which the experiment was to be carried out at Woburn were such that a very small minority of farmers in this country would be able to adopt on their premises. It was proposed to take calves from reacting cows, to move them into buildings which had been carefully disinfected, and where no other cattle would come in contact with them, to give them milk only from tested cows, and take every precaution against infection, in order to show that at the end of two and a half years they were not tuberculous. These were conditions which it was impossible for most farmers to carry out, and therefore the results of the experiment would be of little practical use. He fully admitted those evils to which Mr. Adeane had called attention that day. It was a great misfortune at the present time that animals which had passed the tuberculin test were sent out of the country, while those which reacted remained to be bred from. He was the last person in the world to discourage any experiment or research likely to mitigate that evil. He would support any demonstration which might possibly be the means of checking the evil, but he very respectfully doubted whether the proposed de-

monstration would have any practical effect in that direction. As to whether this demonstration—he objected to the word experiment—was to be carried out or not was a matter which rested in the hands of the Council. He could only say, on the part of the Veterinary Committee, that after giving careful consideration to the question, they had come to the conclusion that they were not justified in making a recommendation to the Council to spend so much money on the demonstration. Speaking for himself, as the Chairman of the Veterinary Committee, he had no objection whatever to the matter being referred back, but he would like to say personally that he was still unconverted, and he was afraid he could not hold out any hope that he would be able to alter his opinion on the matter.

Mr. MANSELL desired to say a few words in support of Mr. Adeane's amendment, as he had been partly responsible, and had acted in Mr. Adeane's place at the Veterinary Committee. He was of opinion that this experiment or demonstration would have a very good effect on the farmers of the country. Lord Northbrook had referred to the fact that intelligent men knew, and that it was more or less proved, that tuberculosis was not exactly hereditary, but was contagious. The Society, however, had to appeal to the ordinary farmer, to the farmer who knew little or nothing about it. If they carried out the demonstration and were able to show him how he could build up from an unhealthy herd a healthy herd, they would be doing a very great deed. The date was not far distant when local authorities would probably enact that the milk supply of this country should be from non-tuberculous cows. Supposing the whole of the cattle supplying the milk were tested in the next month, the result would be appalling. They were told by the Board of Agriculture that the consumption of milk was increasing by about six million gallons per year, and if all the cattle were tested he thought they would soon have a milk famine. He knew there were objections to the experiment, and one was the difficulty of carrying it out, but anything was difficult that was worth doing. The objection was that the ordinary farmer could not isolate. He thought the majority of them could isolate. At any rate, by means of isolation they could build up a healthy herd, if the majority of landowners would give them facilities for doing so. From the remarks that had been made there seemed to be an opinion that the matter had been proved. He had had a considerable experience amongst farmers, and his opinion was that they must be demonstrated to by some important body. They were naturally a conservative body of men in their methods, and rightly so, and it was only by driving facts home to the hilt that they could get them accepted. If they could carry out the experiment and prove conclusively that by certain means it was possible to build up a healthy herd from an existing tuberculous one, they would have done a very great good, and he hoped the experiment would be carried out.

Mr. CARR supported Mr. Adeane's amendment, and sincerely hoped the Veterinary Committee would give it their careful consideration. It was most important that the experiment should be carried out by the Royal Agricultural Society, independent of what might be done by private people.

Sir RICHARD COOPER desired to support the amendment, and expressed the hope that the Veterinary Committee would see their way to rescind the decision come to at their last meeting. In his opinion this was one of the most important questions—perhaps, with the exception of abortion in cattle, the most important the Committee had to deal with. They were sending out of the country all the sound animals and leaving behind the unsound ones, and it was really becoming a very serious matter. The arguments used by Mr. Middleton were used over thirty years ago, when it was first suggested that they should stamp out other diseases. Everyone must admit that there were difficulties in the way, but all those difficulties could be overcome. It was quite possible at the outset that they would make mistakes, but if they did it would be for the benefit of others who could take care to avoid such mistakes in future. When all was said and done, only the ice of this matter had been broken. He would like to ask Lord Northbrook if any experiments had been carried out to ascertain how far, after these animals had been kept for two or three years, they were susceptible to take the disease from other animals suffering from tuberculosis. In his opinion they would find that they were more susceptible than animal not born of tuberculous parents. He did not think that what had been said was any reflection on the English farmer, because the ordinary English farmer had not heard very much about this question. He ventured to say that the arguments with regard to cattle held good with regard to human beings. When a child was born of tuberculous parents, even in a good position in life, what precautions were taken to see that that child should be brought up free from risk of contracting the disease? He was certain in his own mind that if they carried out these experiments a great deal of good would come of them sooner or later, and he was convinced that they could find a very simple and easy means of isolation. If he had to carry out these experiments, and was anxious to get an animal absolutely free from contamination at very little cost, he would erect temporary buildings—even of hurdles and straw, if necessary—in a field away from other buildings. He mentioned a case of an outbreak of swine fever which had occurred recently where temporary buildings of hurdles and straw had been erected in such a way as to ensure complete isolation, and the disease had been stopped instantly. He really thought the question should be referred back to the Committee, and he hoped they would see their way to carry out these experiments.

Major-General BROCKLEHURST said it seemed to him that the wise men of the community had only recently accepted the principle that tuberculosis was not hereditary and only contagious. That might be settled, but it was news to him. Farmers were slow in taking up new ideas, and he thought the only way of bringing such a thing home to them was by means of a demonstration such as that proposed. He could not speak too strongly in support of Mr. Adeane's amendment. The best way of educating the farmer was by means of a demonstration of this sort.

Mr. CRUTCHLEY suggested that instead of referring the matter back to the Veterinary Committee, a far simpler way of dealing with it would be by deciding at once. If they referred it back, the matter would be settled off-hand, and would not come before the Council again. Personally, he should not change his opinion. He thought that this demonstration, to be of use, would involve a much large experiment than the one proposed. Sir Richard Cooper had raised the point of the susceptibility of cattle to contract tuberculosis. That rather pointed to further experiments, and subjecting the animals after two and a half years, or at intervals, to the infection of other animals. That would carry on the experiments indefinitely. In that case the expenditure of a very much larger sum than £800 would be involved. He did not see any objection to referring the matter back, but he thought that it would be much better if it were settled now.

Mr. ADEANE said he had brought the matter forward after very great consideration, because he did not wish to do anything which would appear for a moment to be discourteous to the Veterinary Committee; but, if Lord Northbrook would accept the position, he would like the matter to come before the Council at the present time. He thought it would be quicker and a much more

satisfactory way of settling the question. He did not think he need say very much in answer to the points raised, because those points had been dealt with by Sir Richard Cooper and others. Of course this question was surrounded by difficulties. That they all recognised. They must find some way of carrying it out economically, so that it could be made of use to the small farmers. Lord Northbrook had said that the fact that tuberculosis was not hereditary, but only contagious was recognised by the veterinary authorities. All he could say was that that was not the opinion of the ordinary man, and that was his reason for suggesting that the demonstration should be made. They were told that if the British farmer did not believe what the veterinary authorities said as to what was done in Denmark, he was not likely to believe what the Society did. He (Mr. Adeane) believed that the British farmer had great confidence in the Royal Agricultural Society; it was a growing confidence, and would increase more and more as they showed themselves able to take the lead in such matters. He was glad the question had been so fully debated in the Council, and if Lord Northbrook consented he was quite willing that it should be put to the vote.

Lord NORTHBROOK said he had endeavoured to draw a distinction between experiment and demonstration. He was entirely in favour of experiment which would afford information on this very difficult question, but he could not agree with the expenditure of a large sum of money to demonstrate a fact which was already accepted by the majority of the scientific and practical people throughout this country and throughout the world. With regard to the feelings of the Veterinary Committee, speaking as Chairman, he was very much obliged for the consideration which had been shown; but as this was a matter of urgency, he was quite prepared to put his feelings in his pocket. He only wished to point out that, after very careful consideration, the Veterinary Committee would not take the responsibility of recommending the Council to spend a sum of £800 on the demonstration. Having made this clear, he was prepared to leave it to the majority of the Council to say if they wished to spend the money.

Lorh MORETON expressed the hope that the matter would not be settled that day. It was the most important subject that had been brought before them for some considerable time. There was by no means a large attendance at the meeting, and if the matter were adjourned until next month, it could come up on the report of the Committee. There was nothing on the agenda to give members of the Council any idea that this very important subject was coming up. Personally he would like to vote for the postponement.

Mr. CRUTCHLEY said he understood the proposal to be that powers should be given to the Committee to settle this matter. Therefore the Council would not have it before them again.

Mr. ADEANE hoped that the matter might be decided that day, as Lord Northbrook had no objection to this course being adopted.

Lord NORTHBROOK said that while accepting the suggestion that the matter should be decided by the Council that day, he had not altered his opinion in any way. He would like to congratulate Mr. Adeane, as their Chancellor of the Exchequer, on having so much money to spend. Might he point out that when he recently asked the Special Committee, on behalf of the Veterinary Committee, for a little more money for the purpose of scientific research at the Royal Veterinary College, he was told that the state of the finances of the Society was such that the grant could not be increased, and that there was very little hope of it being increased?

The PRESIDENT said he had been present at the Veterinary Committee on the previous day, when this proposal had been discussed. They had been guided to a great extent by the advice of an expert like Sir John M'Fadyean. Everybody on the Committee was quite prepared to do anything that would produce a practical result. He thought their objection was to the lines on which the experiment was to be carried out.

The original amendment having, by consent of the Council, been withdrawn,

Mr. ADEANE moved, and Mr. Mansell seconded:—"That the experiments suggested to the Veterinary Committee, for the purpose of demonstrating that by means of isolation it is possible to rear healthy stock from tuberculous parents, be referred to the Chemical and Woburn and Veterinary Committees, and that they be asked to carry them out forthwith, at a total cost not exceeding £800 to cover the three years."

The amendment was then put to the vote, and, on a show of hands, was declared carried, 21 voting for and 14 against.

The report of the Veterinary Committee, subject to the above amendment, was then received and adopted.

Shortage of Army Horses.

Mr. Arnold Burgess writing to *The Standard* says:—

The Army Estimates presented to Parliament by the War Minister show that 62,000 horses would be required to mobilise our Regulars as an expeditionary force on a war footing, and that we have only 23,000 horses in our Regular Army, of which 18,000 only would be available for mobilisation. We are thus 44,000 horses short of our requirements for our expeditionary force of Regulars, and these at short notice we could not obtain. It therefore follows that, on a call to arms, our expeditionary force would be simply paralysed for want of horses, and only a small portion of our Regular Army could be mobilised at all, while our Territorials, having no horses of their own, would be absolutely helpless.

An influential deputation of the Incorporated National Union of Horse Vehicle Owners, sound men of business, recently waited upon Mr. Haldane offering suggestions of great practical value to the War Office, with which they offered to co-operate, on horse-breeding and registration, especially advising the increase of the registration fee for farmers from 5s. to 15s. They were treated with polite disdain by Mr. Haldane, and sent about their business without a word of encouragement or hope of improvement. He gave vent to his latest flight of fancy, however, by stating in the vaguest terms, with no data to go upon, his supposition that there were 500,000 horses of the requisite military type to be found in Great Britain.

But, sir, the stern logic of facts which confronts our War Minister from the details of the late Boer war absolutely dissipates any such wild dream, and dispels the vain delusion as to the existence of 500,000 military horses in the British Isles. Let us quote history. We have such short memories. Here are incontrovertible facts and figures, stubborn truths, which no truthful man, not even a Cabinet Minister or King's Counsel, can venture to gainsay or deny! During the Boer war, besides the horses then in the country and those captured in South Africa, the Remount Department of the British War Office bought no fewer than 311,000 animals! Of these only 76,830—a little more than one-quarter—and that in the space of two years and a-half—came from the United Kingdom, and 38,147 from our Colonies, proving the remarkable fact that 196,807 horses—or, roughly, three-fifths of the total—were purchased from foreign nations, from whom, under altered circumstances or at the outbreak of a great European war, we could probably purchase no horses at all at any price.

Here, sir, is a problem for our War Office to solve. If in the two years and a-half between October, 1899, and

June, 1902, the United Kingdom could only furnish 76,830 remounts, or an average of 30,732 per annum, when there was a far larger supply of suitable horses in the country than now, how many suitable military horses could the country now supply at a moment's notice?

The extraordinary increase of motor power is rapidly driving off our streets and roads all over the country the most useful type of horse for military purposes, and the birth-rate of such animals, with an ever-decreasing demand, is falling off in an alarming degree, and will soon, unless the decline is arrested by the military authorities, approach the vanishing point. In conclusion, a grave peril menaces the country. We have not nearly enough horses to mount our Regular Army and provide transport for it in the event of war. We could not mount our Territorials at all.—Your obedient servant,

W. ARNOLD BURGESS.

REVIEW.

THE STANDARD CYCLOPEDIA OF MODERN AGRICULTURE AND RURAL ECONOMY.—Edited by Prof. R. PATRICK WRIGHT, F.H.A.S., F.R.S.E. Vol. viij. Lan-Met. Pp. 256, with 25 plates and folding model of a horse. (The Gresham Publishing Co., Southampton Street, Strand, W.C.)

The eighth volume of this valuable cyclopedia is chiefly concerned with subjects that mainly interest the strictly agricultural reader. It commences with a series of articles upon the various subjects connected with "Land"—land value, land improvement, land tenure, and other matters, not forgetting a *résumé* of the main proposals for the yet incipient scheme of land nationalisation. Leases, agricultural loans, and the laws governing the relation of masters and servants, are other important legal questions which are considered, and the majority of the remaining major articles in the volume relate to cultivation. Loams, lime, limestone, and liming, manure, maize, mangel-wurzel, linseed, lucerne, and meadow grasses, may be mentioned as amongst the most important of these; and other noteworthy economic sections are those concerning meat, and a long article upon the leather industry. Of the various breeds of animals which form the subjects of special articles, perhaps mention should first be made of the Merino and Leicester sheep, but many other breeds are noticed; and indeed, in this as in previous volumes, the care taken to give an accurate account of breeds of minor importance well illustrates the comprehensive character of the whole work. Thus the old Longhorn breed of cattle, which, though its prospects have revived somewhat in recent years, is still of very limited distribution, receives full notice; and so does the now even less generally known Limestone sheep—with, of course, many more familiar breeds, from the Lincolnshire Red Shorthorn, which is rightly dealt with apart from the great breed of which it is an established variety, to the Leghorn fowl.

Finally, we must not omit to mention a good summary of the scientific principles of Mendelism, preceded by a short biographical account of Mendel himself. Without mentioning many other subjects dealt with, we may say generally that the present volume fully maintains the high standard of the cyclopedia. Possibly it contains, as a whole, less matter to interest the general reader than some of its predecessors. But to the serious agriculturist, for whom it is intended, it is by no means the least valuable issue of the series.

W. R. C.

DISEASES OF ANIMALS ACTS 1894 TO 1903, SUMMARY OF RETURNS.

Period		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Counties Affected	Sheep Scab.	Swine Fever.	
		Out-breaks	Animals.	Out-breaks	Animals.	Out-breaks	Animals.	Animals Attacked	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended May 7		28	40			5	8		3	36	459
Corresponding week in	1909 ...	35	35			12	38		21	46	395
	1908 ...	30	37			16	48	London 6	8	55	247
	1907 ...	38	51			22	34		...	71	336
Total for 19 weeks, 1910		584	720			139	336	Middlesex 1 Lanark 1	304	446	3943
Corresponding period in	1909 ...	552	740			234	922		433	606	5614
	1908 ...	461	635	3	112	297	1015		616	654	3388
	1907 ...	446	614			354	791		382	809	4105

Board of Agriculture and Fisheries, May 10, 1910.

								Parasitic Mange (outbreaks)			
IRELAND. Week ended April 30		...	...	...	...	...	...	3	8	...	127
Corresponding Week in	1909 ...	...	...	...	...	...	...	...	9	2	—
	1908 ...	1	1	...	...	...	...	...	1	5	172
	1907 ...	...	...	...	...	...	...	...	3	1	16
Total for 18 weeks, 1910 ...		4	6	...	...	1	2	32	299	29	812
Corresponding period in	1909 ...	2	2	...	...	...	...	37	262	12	117
	1908 ...	4	7	...	...	...	...	19	245	63	1378
	1907 ...	1	3	...	...	...	...	40	150	49	908

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, May 4, 1910

NOTE.—The figures for the Current Year are approximate only.

* As Diseased or Exposed to Infection

Swine Fever in Huntingdonshire.

At a meeting of the Huntingdonshire Chamber of Agriculture at St. Ives, the Chairman, Mr. R. C. Grey, alluded to the recent refusal of the Huntingdonshire County Council to publish an order of the Board of Agriculture, declaring the greater part of the county an infected area for swine fever, and the subsequent appointment of lay inspectors by the chamber, in conjunction with the county council, to watch any cases of swine fever that might occur. He said it was never their intention to take the matter out of the hands of the official inspectors. They had simply visited premises where swine fever had been confirmed and had got details from the owners as to what had become of the pigs. The county had been threatened since the middle of last December with three swine fever infected area orders, but not one of them had been put into force. They had taken their stand on the fact that the cases were not typical, virulent, malignant swine fever, and the Board were so doubtful about it that they did not make an order. The chamber held the reins in their hands, and if they considered the action was unreasonable and took a decided stand with a good case they could frighten the Board of Agriculture or any other Board into reasonable action.

Several other speakers said that recent cases of swine fever in the district had not been of a virulent type and that other pigs in the same premises had not been infected, and a number of gentlemen were nominated to give evidence before the departmental inquiry, if required.—*Times.*

Tuberculous Meat.

On April 20th seven sides of beef were seized in the London Central Markets. Of these six had either the whole or part of the serous membranes stripped and some of the lymphatic glands removed, and all showed signs of tuberculosis, in spite of attempts to conceal it. On the 21st four others were found in the same condition, the lesions being so obvious that (states the Medical Officer of Health) the most cursory examination would have shown that they were unfit for food. It was stated that the beef was Danish, the animals having been killed at Antwerp and the meat imported into this country through Harwich. The agent who handled the beef in London states that there were originally 303 animals; of these four were lost overboard and 20 carcases were condemned at Antwerp, the remainder being sent to London. Each carcase bore two labels, one attached to the meat and the other to the wrapper. The latter label carried the slaughterhouse stamp, which was stated to be proof that the beef had been inspected and passed as fit for export.

The fact that the meat was stripped justified its seizure, apart from the presence of tubercle, and, moreover, the label is not an "official certificate" within the meaning of the Public Health (Regulation as to Food) Act, 1907. At present there is no official certificate recognised for meat from Belgium other than pork. As the importers express themselves anxious to obtain this certificate, there should be no difficulty in the matter, and the Medical Officer (Dr. Collingridge) has, therefore, reported the facts to the Local Government Board.—*The Times.*

Drinking Fountains.

The annual meeting of the Metropolitan Drinking Fountain and Cattle Trough Association was held at its offices, 70, Victoria Street, S.W. In the absence of Lord Cheylesmore the chair was taken by Colonel F. C. Keyser. In moving the adoption of the report, the Chairman said that members might congratulate themselves on having had a fairly prosperous year. The report stated that 4,000 horses had been known to quench their thirst at a single fountain, and 6,600 persons to drink at a single fountain during a period of 24 hours. In the metropolis alone, in a single day, 1,392,000 persons quenched their thirst at the fountains. The number of dogs that drank at the cattle troughs was beyond estimation. Unfortunately the Association was being badly hit at the present time by the enhanced price of water charged by the Metropolitan Water Board, and there seemed little possibility of a return to the rates that were charged by the old water companies. The Association had extended its operations not only in every part of the United Kingdom, but to such far-off places as South and West Africa, Japan, Australia, Darjeeling (India), and Southern Europe. A fountain was about to be despatched to Accra, on the West Coast of Africa, to inculcate kindness to animals, to promote temperance habits, and to commemorate a native lady who formed a branch society with objects closely allied to those of the Association.

Prosecution by R.C.V.S.

A man who described himself as a "Cat doctor and expert" found himself before the Croydon Borough Bench on Tuesday, 3rd inst., on a charge of so describing himself without being registered as a veterinary surgeon. The defendant was Edward George Burns, alias "Salvo," of Grange Road, Thornton Heath, and who pleaded not guilty to the charge.

Mr. G. Thatcher, solicitor to the Royal College of Veterinary Surgeons, who prosecuted, stated that a lady took a dog to the defendant's house which was suffering from distemper, and she said it required treatment. She asked defendant what his fee would be, and he said it would be 3s. 6d. He gave her two bottles of medicine, on which were the words "Cat Doctor and Expert." That was what was complained of. It was not perhaps a very serious offence, but it was one that should be put a stop to.

Matilda Mitchell gave evidence of bringing the dog to the defendant, and paying him 3s. 6d. for two bottles of medicine.

Defendant: I should like to ask the lady if the dog is dead?—It is not.

The Clerk: That is to your credit, anyway. (Laughter.)

A long legal argument on the technical points of the case ensued between Mr. Thatcher and the Magistrates' Clerk.

The defendant submitted that there was no case for him to answer. He had been proceeded against in the County Court for being an unqualified person, and had gained the verdict. The statute said that a man could not call himself a veterinary surgeon, but he did not claim to be a veterinary surgeon and did not use veterinary medicine. He contended there was nothing misleading in his advertisements, and the words "cat doctor" on the particular labels on the bottles were due to a "printer's error." He had destroyed all the labels with the exception of a few, which had got mixed up with others. There was nothing in his advertisements or literature referring to him as "cat doctor." He would not accept a qualification from the Royal College. A "cat doctor" had nothing to do with medicine, and consisted of a man being able to judge of the diseases affecting cats. He subsequently repeated most of these statements on oath, and said that the lady who purchased the bottles was a detective employed by the College.

Mr. Thatcher said action had been taken because of complaints which had been received.

Mr. Dyer expressed the opinion that the case against the defendant had been proved.

Ald. King dissented, and held that the evidence was in defendant's favour, and considered the case ought to be dismissed.

The Chairman said he was so confident he was right that he would of his own accord submit the case to counsel for his own benefit.

The summons was accordingly dismissed, and the Bench agreed to state a case.—*The Croydon Chronicle.*

The Development Act.

Mr. Lloyd George has announced the names of the Commissioners to be appointed under the Development Act. They are:—

Lord Richard Cavendish (Chairman); Sir Francis Hopwood (Vice-Chairman, and paid Commissioner), Permanent Under-Secretary for the Colonies; Mr. Sainthill Eardley-Wilmot, Inspector-General of Forests to the Government of India for several years; Mr. William S. Haldane, of Edinburgh, Writer to the Signet, and land agent; Mr. Alfred D. Hall, Director of the Rothamsted Agricultural Experimental Station; Mr. Sidney Webb, whose work in the spheres of education and social reform is well known; Mr. M. A. Ennis, of Dublin, a farmer; Mr. H. Jones Davies, of Carmarthen, also a farmer.

The work which these Commissioners have to do may be gathered from the Bill which appointed them.

Objects of the Commission.

The Treasury may, says the Bill, upon the recommendation of the Development Commissioners appointed under this Act, make advances to a Government department, or through a Government department to a public authority, university, college, or institution, or an association of persons or company not trading for profit, either by way of grant or by way of loan, or partly in one way and partly in the other, and upon such terms and subject to such conditions as they may think fit, for any of the following purposes:—

(*a*) Aiding and developing agriculture and rural industries by promoting scientific research, instruction, and experiments in the science, methods, and practice of agriculture (including the provision of farm-institutes) the organisation of co-operation, instruction in marketing produce, and the extension of the provision of small holdings; and by the adoption of any other means which appear calculated to develop agriculture and rural industries;

(*b*) Forestry (including the purchase and planting of land, the conducting of inquiries, experiments, and research for the purpose of promoting forestry and the teaching of methods of afforestation);

(*c*) The reclamation and drainage of land;

(*d*) The general improvement of rural transport (including the making of light railways, but not including the construction or improvement of roads);

(*e*) The construction and improvement of harbours;

(*f*) The construction and improvement of inland navigations;

(*g*) The development and improvement of fisheries; and for any other purpose calculated to promote the economic development of the United Kingdom.

For the purposes of improving the facilities for road traffic in the United Kingdom and of the administration of the road improvement grant provided under any Act passed in the present or any future session of Parliament there shall be constituted in accordance with regulations made by the Treasury a board, to be called the Road Board.—*Public Opinion.*

Effects of Anæsthetics upon the White Corpuscles.

At a meeting of the Société Médicale des Hôpitaux, Dr. Achard gave the results of some interesting observations on the effect of Anæsthetics upon the resistance and activity of the white corpuscles. *In vitro* cocaine and stovaine, even in very weak solutions of 1 in 1000 and 1 in 2000, diminish their activity. The activity of the white corpuscles is also much diminished by the vapours of bromide of ethyl, chloroform, and ether. *In vivo*, in conditions of spinal anæsthesia, the leucocytes are hardly affected by stovaine, but their activity is weakened by cocaine in large doses. Ethyl chloride, the action of which is only of short duration, produces no change. Anæsthesia with ether and with chloroform lowers the resistance and activity of the leucocytes markedly for several hours. The corresponding properties of the serum are not always diminished in the same way, and the author therefore supposes that the anæsthetic fixes itself upon the white corpuscles. He suggests that surgeons might take these facts into consideration in the interpretation of certain accidents following operations under anæsthesia.—*The Hospital.*

Stoke-on-Trent County Borough Council.

The Diseases of Animals Act Committee reported:

That on the suggestion of the Board of Agriculture and Fisheries they have appointed the Acting Chief Constable to be Acting Chief Inspector for the Borough under the Diseases of Animals Act, 1894, and have also appointed all officers of the police force of the Borough for the time being to be Inspectosrs for the execution and enforcement of such Act, with power to carry out all orders, rules, and regulations made under the said Act.

That as a consequence of the above appointments your committee recommend:

That the offices of all existing officers of the Council carrying out duties under the Diseases of Animals Act, 1894, within the Borough be abolished.

Your committee beg to report:

That they have appointed a sub-committee to confer with members of other committees of the Council requiring the services of a veterinary surgeon, as to the appointment of one or more veterinary surgeons for the Borough.

That as a temporary measure they have appointed Mr. W. G. Burndred to act as Veterinary Inspector for the parishes of Hanley, Burslem, Tunstall, and Goldenhill, and Mr. William Tart, of Longton, as Veterinary Inspector for the parishes of Longton, Stoke-on-Trent and Fenton.—*Staffordshire Sentinel.*

The Veterinary Faculty, Toronto University.

The recommendation of the University Commission to establish a faculty in veterinary science was carried out two years ago by the purchase of the Ontario Veterinary College. During the first year of the new *régime* the teaching sessions and the graduation exercises were held in the old College buildings on Temperance Street. Last year, however, the teaching was carried on in part at the old college and in part in the University Buildings, and the students of the graduating class have come into their own academically in receiving their diplomas in the Convocation Hall of the University. At the exercises which culminated the year's work the President of the University delivered the Baccalaureate address, and the Minister of Agriculture presided.

This significant change is coincident with the extension of the course from two to three years, and the addition of scientific courses on milk inspection, meat inspec-

tion, theoretic and practical bacteriology, and an extension of the course in biology and histology, so that the scientific training in the last three sciences is scarcely less thorough than that given the student in medicine. The student also obtains under the able teaching of the Dean of the Faculty a thorough training in sanitation and preventive medicine as pertaining to livestock.

Thus the veterinary graduate of this year becomes a capable adviser of the conditions under which livestock should be kept. He also becomes a laboratory expert, capable of inspecting and bacteriologically testing milk, and not only a practitioner able to treat disease, but also one qualified to make a thorough inspection of carcases designed for food. The livestock of Ontario, according to the report of the Department of Agriculture, is worth $190,000,000, of which $60,000,000 comes annually to sale. For the protection of such an asset the Provincial Government may well provide, even at a considerable cost, a thoroughly-equipped veterinary College, and to this end a generous policy is a well-placed insurance of livestock.—*The News* (Toronto.)

Cruelty Charge at Rollesby.

At Rollesby Petty Sessions on Tuesday, before the Rev. R. J. Tacon (chairman), Colonel R. W. Edis, C.B., and Messrs. C. B. Lucas, G. J. Hacker, C. W. Waters, and D. G. W. Braddock.

Robert Thurtle, farmer, of Oby, and Charles Turner, senr., his teamman, were summoned for cruelty to a mare, Mr. A. E. Cowl prosecuted on behalf of the R.S.P.C.A., and Mr. F. Reeve, of Norwich, defended.

Mr. Cowl said a mare belonging to Thurtle was due to foal on or about April 12th. However, on that day things went wrong, and in their efforts to remedy matters defendants were, it was alleged, guilty of the grossest cruelty. A second act of cruelty was that the mare was left in agony in a stall to die a lingering death. It died about five o'clock Defendant seemed to have refrained from putting a bullet through it because he was afraid of startling a valuable horse in an adjoining stall. His obvious duty, when the mare did not foal properly was to have saddled his best horse and fetched the nearest veterinary surgeon.

William Hodds, labourer, of Oby, attending on subpœna, said he was employed by Mr. Wiseman. On Tuesday night the defendant Thurtle called at his house about half-past twelve, and said, "Come and help me; don't stop to do your shoes up." He accompanied him to a loose box in his stables where a mare was foaling. The foal was dead, and witness, Turner, and a boy helped to pull it away.

Cross-examined—he had known Thurtle for some time. As far as he knew, he had the reputation of being kind to his animals. He seemed to be doing his best to save the life of the mare by getting the foal away as quickly as possible. The mare was in great pain when he arrived at the stable, but after the foal was taken away it seemed relieved, and did not make any noise. Thurtle did what he could to make the mare comfortable afterwards and to help it all he could.

Charles Turner, junr., son of the defendant, said he was called up about half past twelve by his father. He arrived at the stable after the last witness, and assisted to pull. Cross-examined—His father and Thurtle tried to help the mare all they could.

Inspector Quigley, R.S.P.C.A., said on Sunday, April 17th, in consequence of information received, he went to Oby and saw both the defendants. He told them what was accused against them, and gave the customary caution. Thurtle said, "That is right. What else was I to do? It was taken about 11 o'clock on Tuesday night, and by the time we got the foal away it was 1 o'clock. We were pulling all the time. I did it to save cruelty." Witness said, "You ought to have sent for a veterinary surgeon when you found yourself in difficulties." He replied, "By the time I could have got one the mare would have been dead." Witness said, "It was proved that the mare did not die, and you should have put a bullet into her." He answered, "I would have shot it, but was afraid of frightening the horse in the next box. I am expecting to get 75 guineas for it, and I hope I shall." Witness asked him if he said that if the mare was alive in the morning he would shoot it, and he said that what he said was that she would soon be dead.

William H. Chappell, veterinary surgeon to the Corporation and Cattle Market of King's Lynn, said he had been qualified for fourteen years. He had had experience of difficult cases of foaling, and said mechanical traction was usually employed, under the guidance of a competent veterinary surgeon with the necessary appliances, but the extra pressure should not be continuous. The mare should be given a chance. To attach a horse was diabolical—worse than ordinary cruelty. After 1½ hours' pulling the assistance of a veterinary surgeon should have been secured.

Cross-examined: He did not say that the defendant was purposely cruel, but he was injudicious. A farmer was expected to have rather more than a superficial knowledge.

Herbert Buckingham, veterinary surgeon, of Earlham Road, Norwich, said a veterinary surgeon ought to have been sent for after half an hour. Witness described the usual procedure in different cases, and said it was an act of cruelty to attach a horse.

Cross-examined: He did not say that the defendant was wantonly cruel, but it was an act of cruelty to use a horse.

Mr. Reeve said the question for the magistrates was whether there had been any legal cruelty. He asked them to come to the conclusion with regard to the dragging by the horse that although it was a thing which no veterinary surgeon would do, it was nothing more than an injudicious error of judgment. Mr. Justice Day had laid down that cruelty was the infliction of pain with no legitimate object. Defendant had the honest intention of relieving the unfortunate animal from pain. With regard to the other suggestion, defendant evidently believed the mare would live, and so made her comfortable for the night. Both men had unblemished characters, and although the Society was perfectly right in bringing the case, he asked the magistrates after hearing the whole facts to dismiss it on the ground that there had been no intentional cruelty.

Col. Edis: Which would be the most usual, to leave the foal for an hour while a veterinary surgeon was fetched, or to injudiciously exercise increased power to relieve the mare, as was done in this case?

Mr. Buckingham: It was the most cruel to pull the foal away. The mare should have been left. It would have done no harm.

The Chairman said the magistrates had given very careful consideration to the case. They agreed that Thurtle was not desirous of causing the mare more pain than he could help, but he had acted injudiciously and improperly, and he would be fined 60s., including costs. The case against Turner was dismissed, as he was a servant.—*Eastern Daily Press.*

General Anæsthesia by Means of X-Rays.

In *The New Zealand Medical Journal*, under the above heading, Dr. J. P. Hastings, hon. anæsthetist to the Dunedin Hospital, describes some original experiments made by him on the guinea-pig. After reading the work of Leduc, of Nantes, on the production of general anæsthesia in animals by means of the interrupted electrical current, he was struck with the idea

that similar effects might be produced by the x-rays' The tube used was a hard Crookes', the strength of current in the coil 5-6 ampères, the length of spark 12 inches, and the strength of current in the tube itself 2-3 milliampères. The following are the authors' suggestions with regard to the best position in which to place the animal: "Draw an imaginary line at right angles to the surface of the anti-kathode; on this line take a point one inch from the surface of the Crookes' tube; place the animal to be anæsthetised so that the imaginary line cuts the back of the skull at the point indicated." Anæsthesia is complete in two to three minutes after the commencement of the exposure, the time varying slightly in different animals. The length of time varies inversely as the strength of the current and the distance of the animal from the tube. Previous to the onset of anæsthesia there is a stage of excitement during which the animal struggles convulsively. The struggles gradually decrease until unconsciousness and complete relaxation are present. The breathing and heart-beats lessen in intensity. Anæsthesia lasts five to seven minutes, during which there is complete insensibility to external stimuli. As the effects pass off the heart commences to beat more strongly and the respirations become deeper. Consciousness gradually returns, the animal stands up, and moves about in a dazed fashion. Finally if runs about as well as ever. There are no after-effects, such as nausea, and no apparent impairment of intelligence. The results have been approximately the same in all cases, and no death has occurred. The author thinks that radium emanations may have a similar effect of inducing anæsthesia, in that the gamma-rays of radium are comparable to the x-rays, and resemble the latter in penetrative power. He is uncertain whether the subject of x-rays anæsthesia will ultimately prove of more than academic interest, and would welcome further experiments with a view to elucidating the point. He is at present investigating the possibilities of blue light as a producer of anæsthesia.

Personal.

Mr. W. F. Houston, M.R.C.V.S., Paisley, was one of the judges of Hackneys at Cardiff Show on Wednesday, May 4.

Mrs. Blanche E. Dunn, wife of Mr. Charles J. Dunn, veterinary surgeon, of Poplar, was awarded £30 damages in the Lord Mayor's Court, on Monday last against Exhibitions, Limited, for injuries received in an accident on the spiral railway at Shepherd's Bush in August last year.

OBITUARY.

Joseph East, M.R.C.V.S., Aylesbury Bucks.
Graduated, Lond: April, 1851.

Mr. East died on May 1st from chronic cystitis. Aged 81 years.

James Rumsey Williams, M.R.C.V.S., Carnarvon.
Lond: April, 1865.

Death occurred at Carnarvon, on May 7th, at the age of 68 years, from arterio-sclerosis.

CORRESPONDENCE.

FEES PAID BY INSURANCE COMPANIES.

Sir,

At the meeting of the Southern Counties Veterinary Society held on March 31st, during a discussion on professional etiquette, reference was made to the fees paid by insurance companies to veterinary surgeons. One member said he had returned an insurance form to a company with an intimation to the effect that his fee was half-a-guinea, while another stated that he invariably refused such work.

The fees paid are certainly small in most cases, and sometimes unreasonably small, as in the case of companies which do not pay the veterinary surgeon a percentage on the premium paid, but adopt a uniform fee of 2/6. No doubt we should be acting wisely in refusing to act for those offices which do not pay on the sliding scale—and possibly also in demanding a slight increase in the fees paid by those which adopt the sliding scale—but to demand a half-guinea fee in all cases is unreasonable.

How can we expect to receive 10/6 in those cases where the premium paid amounts only to sixteen or eighteen shillings? By refusing to accept any fee less than half-a-guinea—if such an action were generally adopted—veterinary surgeons would make the insurance of many animals a practical impossibility, and as these animals in a very large number of cases belong to small owners, such an action is hardly justifiable.

The time of some members of the profession may be much too valuable to permit them to engage in such poorly paid work and they have a right to refuse it—but is it not absurd to insinuate that there is anything unprofessional in accepting small fees in those cases where larger fees are impossible? It is unusual to pay special visits to such cases, and many of them may be examined on our own premises.

My intention is not to pose as an authority on matters relating to insurance, but it is difficult for me to imagine how a company could make a sixteen shilling premium pay after giving up ten shillings and sixpence to the veterinary surgeon.—Yours etc.,

S. J. M.

SCROTAL HERNIA.

Sir,

I should like to provoke a discussion among the readers of *The Veterinary Record* as to the best method of operating on colts suffering with the above. I have had some experience of the covered operation and I cannot say that it has been at all satisfactory. The steel clam is in my opinion far too heavy, and must cause a tremendous drag on the spermatic cord. The last case I had the bowels came down in the night although the clams were in position. I had not an opportunity to make a post-mortem, but I imagine it was a case of false inguinal hernia.

I should like to know if any of your readers have tried the method described in Williams' Veterinary Surgery, that is placing a strong wooden clam over the scrotum as high as possible, including the skin and allowing the whole mass to slough off. To my mind, although I have not tried this method, the procedure seems the safest plan, as by it all troublesome dissection is avoided, and the barrier to the descent of the bowels must be much stronger.

Trusting to hear the views of your readers at an early date.—I am, yours faithfully,

M.R.C.V.S.

THE COMPENSATION FOR INJURY ACTS.

Sir,

I should be glad if you or some of your readers would inform me what is the custom of the profession with regard to the Workmen's Compensation Act. I have just newly got an assistant and I should like your advice whether to insure or not. I have had a prospectus from two companies, but the premium seems exorbitant, viz. 40/- per £100. Thanking you in anticipation.—Yours faithfully,

M.R.C.V.S.

Communications and Papers received:—P. Turner, J. H. Bennett, J. B. Wolstenholme, H. Gray, L. C. Tipper. S. J. M., M.R.C.V.S. *The Veterinary Standard*, *The Croydon Observer*. *The Eastern Daily Press*.